

Application Number 10/731,867

Amendment in response to Final Office Action mailed April 4, 2008

AMENDMENTS TO THE CLAIMS

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This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An implantable medical device comprising:

a plurality of interconnected modules, wherein at least one of the interconnected modules ~~comprising~~ comprises a metallic housing;

an overmold that at least partially encapsulates each of the interconnected modules;

a therapy delivery element to deliver a therapy to a brain of a patient; and

control electronics to control the delivery of the therapy by the therapy delivery element,

wherein the therapy delivery element and control electronics are located within one of the interconnected modules,

wherein the interconnected modules are horizontally distributed at respective locations of the overmold, and separately encapsulated by the overmold,

wherein the overmold is formed such that a surface of the overmold is concave along ~~at least one axis~~ two perpendicular axes prior to manipulation of the implantable medical device ~~such that the surface and~~ is adapted to be implanted proximate to a cranium of the patient, and

wherein the overmold does not encapsulate at least a portion of the metallic housing.

Claim 2 (Canceled).

Claim 3 (Original): The implantable medical device of claim 1, wherein the overmold is flexible.

Claim 4 (Original): The implantable medical device of claim 1, wherein the overmold comprises silicone.

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Claim 5 (Original): The implantable medical device of claim 1, wherein the overmold comprises at least two materials.

Claim 6 (Previously Presented): The implantable medical device claim 1, wherein the surface of the overmold is concave such that the surface is adapted to conform substantially to the cranium.

Claim 7 (Currently Amended): The implantable medical device of claim 1, wherein the surface of the overmold is concave such that the overmold conforms substantially to an arc, and a ~~radius~~ radius of the arc is within a range from 4.5 to 9.5 centimeters.

Claim 8 (Original): The implantable medical device of claim 7, wherein the radius of the arc is approximately equal to 7 centimeters.

Claim 9 (Previously Presented): The implantable medical device of claim 7, wherein the surface comprises a first surface of the overmold, and a second surface of the overmold that is adapted to be implanted distal from the cranium substantially conforms to the arc prior to manipulation of the implantable medical device.

Claim 10 (Currently Amended): The implantable medical device of claim 1, wherein the interconnected modules are positioned within the overmold in one of a triangular configuration and a linear configuration.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The implantable medical device of claim 1, wherein at least two of the plurality of interconnected modules each comprise a metallic housing, and wherein the overmold does not encapsulate a portion of each of the at least two metallic housings of the plurality of interconnected modules.

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Claim 13 (Currently Amended): The implantable medical device of claim 1, wherein a surface of the metallic housing ~~that~~ is adapted to be implanted proximate to the cranium and is concave along at least one axis prior to manipulation of the implantable medical device.

Claim 14 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the interconnected modules that comprises the metallic housing comprises a control module that includes control electronics, and the surface of the metallic housing of the control module is concave along two perpendicular axes.

Claim 15 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the interconnected modules that comprises the metallic housing comprises a power source module that includes a battery with a wound coil construction, and the surface of the metallic housing of the power source module and the wound coil battery are each concave along at least one axis prior to manipulation of the implantable medical device.

Claim 16 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the interconnected modules that comprises the metallic housing comprises a power source module that includes a battery with a foil pack construction, and the surface of the metallic housing of the power source module and the foil pack battery are each concave along at least one axis prior to manipulation of the implantable medical device.

Claim 17 (Currently Amended): The implantable medical device of claim 13, wherein at least one of the interconnected modules comprises a recharge module that includes a recharge coil for inductively receiving energy, and a surface of the a housing of the recharge module and the coil are each concave along two perpendicular axes prior to manipulation of the implantable medical device.

Claim 18 (Currently Amended): The implantable medical device of claim 13, wherein the surface of the metallic housing is concave such that the surface is adapted to conform substantially to the cranium.

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Claim 19 (Currently Amended): The implantable medical device of claim 13, wherein the surface of the metallic housing is concave such that the surface conforms substantially to an arc, and a radius of the arc is within a range from 4.5 to 9.5 centimeters.

Claim 20 (Original): The implantable medical device of claim 19, wherein the radius of the arc is approximately equal to 7 centimeters.

Claim 21 (Currently Amended): The implantable medical device of claim 19, wherein the surface of the metallic housing comprises a first surface of the housing, and a second surface of the housing that is adapted to be implanted distal from the cranium conforms substantially to the arc.

Claim 22 (Previously Presented): The implantable medical device of claim 1, wherein the therapy comprises stimulation.

Claims 23-27 (Canceled).

Claim 28 (Previously Presented): The implantable medical device of claim 1, wherein the plurality of interconnected modules comprises at least two modules, each of the modules comprising a metallic housing.

Claim 29 (Currently Amended): The implantable medical device of claim 1, wherein the metallic housing is hermetic and formed of titanium or stainless steel.

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Claim 30 (Currently Amended): An implantable medical device comprising:

a plurality of interconnected modules, wherein at least one of the interconnected modules ~~comprising~~ comprises a metallic housing;

a flexible overmold that at least partially encapsulates each of the interconnected modules;

a therapy delivery element to deliver a therapy to a brain of a patient; and

control electronics to control the delivery of the therapy by the therapy delivery element,

wherein the therapy delivery element and control electronics are located within one of the interconnected modules,

wherein the flexible overmold is formed such that a surface of the flexible overmold ~~that~~ is adapted to be implanted proximate to a cranium of the patient and is concave along ~~at least one~~ axis two perpendicular axes prior to manipulation of the implantable medical device, and

wherein the flexible overmold is configured to allow relative motion between the plurality of interconnected modules.

Claim 31 (Currently Amended): The implantable medical device of claim 30, wherein the housings plurality of interconnected modules are horizontally distributed at respective locations of the flexible overmold, and separately encapsulated by the flexible overmold.

Claim 32 (Canceled).

Claim 33 (Currently Amended): The medical device of claim 1, further comprising a power source located within the metallic housing ~~of one of the modules~~.

Claim 34 (Previously Presented): The implantable medical device of claim 30, wherein the therapy comprises stimulation.

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Claim 35 (New): An implantable medical device comprising:

a plurality of interconnected modules, wherein at least one of the interconnected modules comprises a metallic housing;

an overmold that at least partially encapsulates each of the interconnected modules;

a therapy delivery element to deliver a therapy to a brain of a patient; and

control electronics to control the delivery of the therapy by the therapy delivery element,

wherein the therapy delivery element and control electronics are located within one of the interconnected modules,

wherein the overmold is formed such that a surface of the overmold is concave along two perpendicular axes prior to manipulation of the implantable medical device and is adapted to be implanted proximate to a cranium of the patient, and

wherein the overmold does not encapsulate at least a portion of the metallic housing.